

Title (en)

METHOD FOR PRODUCING AN ASSEMBLY COMPRISING SEVERAL MUTUALLY FIRMLY ADHERING ADDITION-POLYMERIZED SILICONE ELEMENTS

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES GEGENSTANDES VON VERSCHIEDENEN ANEINANDER KLEBENDEN, DURCH POLYADDITION HÄRTENDEN SILIKONSCHICHTEN

Title (fr)

PROCEDE DE REALISATION D UN ENSEMBLE COMPRENANT PLUSIEURS ELEMENTS EN SILICONE RETICULES PAR POLYADDITION ADHERANT FERMEMENT LES UNS AUX AUTRES

Publication

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Application

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Priority

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Abstract (en)

[origin: FR2840910A1] A method of producing an assembly comprising several elements in silicone crosslinked by polyaddition of -SiH groups onto -Si-alkenyl (preferably vinyl) groups which adhere firmly to one another. The method consists of: (I) forming a silicone element using a liquid silicone preparation (A) comprising: (1) one or more POS with -Si-alkenyl (vinyl) groups; (2) one or more POS with -SiH groups; (3) one or more metallic (preferably platinum) catalysts; (4) optionally one or more POS resins bearing -Si-alkenyl groups; (5) optionally a crosslinking inhibitor; (6) optionally one or more adhesion promoters; (7) optionally one or more mineral fillers; (8) optionally one or more functional additives to give specific properties; (II) crosslinking choosing the preparation and crosslinking condition such that the surface density of unreacted alkenyl (vinyl) groups is (per nm²) 0.0015, preferably 0.0030 and most preferably 0.0100-0.0040; (III) optionally repeating (I) and (II) n times to obtain n elements (i) adhering one to another; (IV) forming a silicone element (ii) by contacting it or the last element (i) with a liquid silicone preparation (B) containing components of the same type as those in the first preparation; and (V) crosslinking to obtain a crosslinked silicone element (ii) adhering to element (i). Independent claims are included for a liquid silicone formulation usable as preparation (A) and for a multilayer crosslinked silicone elastomer coating obtainable by the method with a layer delamination resistance above 1N/cm, preferably above 2 N/cm and more preferably above 3 N/cm.

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